

## FIGURE 1A

EXON	BAC Start	BAC Stop	cDNA Start	cDNA Stop	Exon Length
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1	83294	83455	1	162	162	poly A signal is position 111614-111619
2	89834	89986	163	314	152	
3	90696	90839	315	458	144	translation start (ATG) is:
4	93419	93594	459	634	176	cDNA: 92
5	96509	96665	635	791	157	Gene: 83385
6	96983	97300	792	1109	318	
7	103044	103142	1110	1208	99	
8	104413	104515	1209	1311	103	
9	106494	106702	1312	1520	209	
10	110048	110141	1521	1614	94	
11	110592	111633	1615	2656	1042	

111614-111619  
111614-111619  
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111614-111619  
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111614-111619  
111614-111619  
111614-111619  
111614-111619

FIGURE 1B

FOOTAGE = 52001660

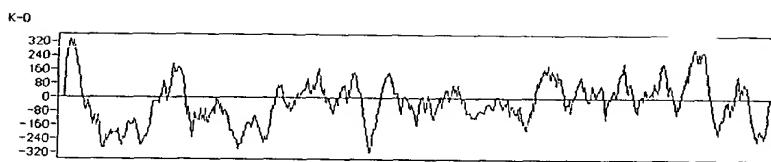


FIGURE 1C

rat	ATGGAAAGTC	TCTGCGGGGT	CCTGGTATTT	CTGCTGCTGG	CTGCAGGACT	GCCGCTCCAG	GCGGCCAAGC	GGTTC	75
mouse	ATGGAAAGTC	TCTGCGGGGT	CCTGGGATTT	CTGCTGCTGG	CTGCAGGACT	GCCCTCTCCAG	GCTGCCAAGC	GATTT	75
human	ATGGAATGTC	TCTACTATTT	CCTGGGATTT	CTGCTCTGG	CTGCAAGATT	GCCACTTGAT	GCGGCCAAAC	GATTT	75
rat	CGTGATGTGC	TGGGGCATGA	GCAGTATCCG	GATCACATGA	GGGAGAACAA	CCAATTACGT	GGCTGGTCTT	CAGAT	150
mouse	CGTGATGTGC	TGGGGCATGA	ACAGTATCCC	GATCACATGA	GAGAGCACAA	CCAATTACGT	GGCTGGTCTT	CGGAT	150
human	CATGATGTGC	TGGGCAATGA	AAGACCTTCT	GCTTACATGA	GGGAGCACAA	TCAATTAAAT	GGCTGGTCIT	CTGAT	150
rat	GAAAATGAAT	GGGATGAACA	GCTGTATCCA	GTGTGGAGGA	GGGGAGAGGG	CAGATGGAAG	GACTCTGGG	AAGGA	225
mouse	GAAAATGAAT	GGGATGAACA	CCTGTATCCA	GTGTGGAGGA	GGGGAGACGG	CAGGTGGAAG	GACTCTGGG	AAGGA	225
human	GAAAATGACT	CGAACATAAA	ACTCTACCCA	GTGTGGAGC	GGGGAGACAT	GAGGTGGAAA	AACTCTGGG	AGGGA	225
rat	GGCGGTGTGC	AGGCAGCCCT	AACCACTGAT	TCACCGCCCT	TTGGGGTTC	CAATATCACC	TCGCTAGTGA	ACCTG	300
mouse	GGCGGTGTGC	AGGCAGCTCT	GACCACTGAC	TCACCGCCCT	TTGGGGTTC	CAATATCACC	TTGTGGTGA	ACCTG	300
human	GGCGGTGTGC	AGGGGCTCT	GACCACTGAC	TCACCGCCCT	TTGGGGTTC	AAATATAACA	TTGCGGTGA	ACCTG	300
rat	GTGTTCCCA	GATGCCAGAA	GGAAAGATGCC	AACGGCAATA	TCGCTATGA	GAGGAACCTGC	AGAAAGTATT	TGGAG	375
mouse	GTGTTCCCA	GATGCCAGAA	GGAAAGATGCT	AATGGCAATA	TCGCTATGA	GAAGAACTGC	AGGAATGATT	TGGGA	375
human	ATATTCCCTA	GATGCCAAA	GGAAAGATGCC	AATGGCAACA	TAGTCTATGA	GAAGAACTGC	AGAAATGAGG	CTGGT	375
rat	CTGGCTCTG	ACCCGATATGT	CTACAACTGG	ACCAACAGGGG	CAGACGATGA	GGACTGGAA	GACAACACCA	GCCAA	450
mouse	CTGACATCTG	ACCTGATATGT	CTACAACTGG	ACTGCAGGGG	CAGATGATGG	TGACTGGAA	GATGGCACCA	GCCGA	450
human	TTATCTGCTG	ATCCATATGT	TTACAACTGG	ACAGCATGGT	CAGAGGACAG	TGACGGGAA	AATGGCACCG	GCCAA	450
rat	GGCCAGCACC	TCAGGTTCCC	CGACGGGAAG	CCCTCCCTC	GCCCCCACGG	ACGGAAGAAA	TGGAACCTCG	TCTAC	525
mouse	AGCCAGCCTC	TCAGGTTCCC	GGACAGGAGG	CCCTCCCTC	GCCCCCATGG	ATGGAAGAAA	TGGAGCTTG	TCTAC	525
human	AGCCATCTATA	ACGTCTTCCC	TGATGGAAA	CCCTTTCCCTC	ACCACCCGG	ATGGAGAAGA	TGGAATTCTA	TCTAC	525
rat	GTCTTCCACA	CACTTGGTCA	GTATTTCAA	AACTGGGTC	AGTGTTCAGC	ACGAGTTCT	ATAAACACAG	TCAAC	600
mouse	GTCTTCCACA	CACTTGGCCA	GTATTTCAA	AAACTGGGTC	GGTGTTCAGC	ACGGGTTCT	ATAAACACAG	TCAAC	600
human	GTCTTCCACA	CACTTGGTCA	GTATTTCCAG	AAATTGGGAC	GATGTTCACT	GAGAGTTCT	GTGAAACACAG	CCAAAT	600
rat	TTGACAGTTG	GCCTCAGGT	CATGGAACTG	ATTGCTTTG	GAAGACACGG	CCGGGCATAC	ATTCCCATCT	CCAAA	675
mouse	TTGACAGCTG	GCCTCAGGT	CATGGAACTG	ACTGCTTTG	GAAGATACGG	CCGGGCATAC	ATTCCCATCT	CGAAG	675
human	GTGACACTTG	GCCTCAACT	CATGGAACTG	ACTGCTACA	GAAGACATGG	ACGGGCATAT	TTTCCCATCG	CACAA	675
rat	GTGAAAGACG	TGTATGTGAT	AACAGATCG	ATCCCTATAT	TCGTGACCAT	GTACCAAG	AATGACCGGA	ACTCG	750
mouse	GTGAAAGATG	TGTATGTGAT	AACAGATCG	ATCCCTGTAT	TCGTGACCAT	GTCCCAGAAG	AATGACAGGA	ACTTG	750
human	GTGAAAGATG	TGTACGGTGT	AACAGATCG	ATTCCCTGTG	TTGTGACTAT	GTTCAGAAG	AACGATCGAA	ATTCA	750
rat	TCTGATGAAA	CCTTCCCTCG	AGACCTCCCC	ATTTTCTTCG	ATGCTCTCAT	TCACGATCCC	AGTCATTCTC	TCAAC	825
mouse	TCTGATGAGA	TCTTCCCTCG	AGACCTCCCC	ATCGCTCTCG	ATGCTCTCAT	TCATGATCCC	AGCCACTTCC	TCAAC	825
human	TCCGACGAAA	CCTTCCCTAA	AGATCTCCCC	ATTATGTGTC	ATGCTCTGAT	TCATGATCTT	AGCCACTTCC	TCAAT	825
rat	TACTCTGCCA	TTTCTTACAA	GTGGAACATT	GGGGACAAAC	CTGGCTGTG	TGCTCCAAAC	AATCACTACTT	TGAAT	900
mouse	GACTCTGCCA	TTTCTTACAA	GTGGAACATT	GGGGACAAAC	CTGGCTGTG	TGCTCCAAAC	AATCACTACTT	TGAAT	900
human	TATTCTACCA	TTAACTACAA	GTGGAGCTTC	GGGGATAATA	CTGGCTGTG	TGTTTCCACC	AATCACTACTG	TGAAT	900
rat	CACACGTATG	TGCTCAATGG	AACCTCAAC	TTAACCTCA	CCGTGAAACAC	TGCACTGGCG	GG-----	-ACCA	966
mouse	CACACTTATG	TGCTCAATGG	AACCTCAAC	TTAACCTCA	CCGTGAAACAC	TGCACTGGCG	GG-----	-GCCA	966
human	CACACGTATG	TGCTCAATGG	AACCTCAAC	TTAACCTCA	CTGTGAAAGC	TGCACTGCCA	GGACCTTGTG	CGCCA	975
rat	-TGCC-CC-T	CACCCACACC	TTCGCCTCT	TCTTCGACTT	CTCCCTC---	---GCCTGCA	TCTTCGCTT	CA---	1029
mouse	-TGCC-C-T	--CCC--CC	TTCGCCTCT	ACTCCGCTT	CACCTTCAC	TCCGCCCTTA	CCTTCGCCCC	CACCT	1032
human	CCGCCACAC	CACCCAGACC	TTC-----	-----AA-	-----A	-----	-----	-ACC-	1004
rat	---CCCACAT	TATCAACACC	TAGTCCCTCT	TAAATGCTTA	CTGGCTACAA	ATCCATGGAG	CTGAGTGACA	TTTCC	1101
mouse	TTGCCCCACAT	TATCAACACC	TAGCCCTCT	TAAATGCTTA	CTGGTTACAA	ATCCATGGAG	CTGAGTGACA	TTTCC	1107
human	-----	-----CACC	---CTTCT	TTAGGACCTG	CTGCTGACA	CCCCCTGGAG	CTGAGTAGGA	TTCTT	1059
rat	AATGAAAAC	GGCGAATAAA	CAGATATGGT	TACTTCAGAG	CCACCATCAC	AATTGTAGAT	GGAACTCTAG	AAGTC	1176
mouse	AATGAAAAC	GGCGAATAAA	CAGATATGGC	TACTTCAGAG	CCACCATCAC	AATTGTAGAG	GGGAACCTGG	AAGTC	1182
human	GATGAAAAC	GGCGAGATAA	CAGATATGGC	TACTTCAGAG	CCACCATCAC	AATTGTAGAG	GGAACTCTAG	AGCTT	1134

FIGURE 2A

rat	AACATCATCC	AGGTAGCAGA	TGTCCCCATC	CCCACACTGC	AGCCTGACAA	CTCACTGATG	GACTTCATTG	TGACC	1251
mouse	AGCATCATGC	AGATAGCAGA	TGTCCCCATG	CCCACACCGC	AGCCTGCCAA	CTCCCTGATG	GACTTCACTG	TGACC	1257
human	AACATCATCC	AGATGACAGA	CGTCCCTGATG	CCGGTGCCAT	GGCTGAAAG	CTCCCTAATA	GACTTTGTGCG	TGACC	1209
rat	TGCAAAGGGG	CCACTCCCCAC	GGAAAGCCTGT	ACGATCATCT	CTGACCCAC	CTGCCAGATC	GCCCAGAAC	GGGTG	1326
mouse	TGCAAAGGGG	CCACCCCCAT	GGAAAGCCTGT	ACGATCATCT	CCGACCCAC	CTGCCAGATC	GCCCAGAAC	GGGTG	1332
human	TGCAAGGGG	GCATCCCCAC	GGAGGTCTGT	ACCATCATTT	CTGACCCAC	CTGCCAGATC	ACCCAGAAC	CAGTC	1284
rat	TGCAGCCCCG	TGGCTGTGGA	TGAGCTGTGC	CTCCCTGTCCG	TGAGGAGAGC	CTTCAATGGG	TCCGGCACGT	ACTGT	1401
mouse	TGCAGCCCCG	TGGCTGTGGA	TGGCTGTGC	CTGCTGTCTG	TGAGAAGAGC	CTTCAATGGG	TCTGGCACCT	ACTGT	1407
human	TGCAGCCCCG	TGGATGTGGA	TGAGATGTGT	CTGCTGACTG	TGAGACGAAC	CTTCAATGGG	TCTGGGACGT	ACTGT	1359
rat	GTGAATTTC	CTCTGGGAGA	CGATGCAAGC	CTGGCCCTCA	CCAGCGCCCT	GATCTCTATC	CCTGGCAAAG	ACCTA	1476
mouse	GTGAATTTC	CTCTGGGAGA	TGATGCAAGC	CTGGCCCTCA	CCAGCACCC	GATCTCTATC	CCTGGCAAAG	ACCCA	1482
human	GTGAACCTCA	CCCTGGGGGA	TGACACAAGC	CTGGCTCTCA	CGAGCACCC	GATTTCTGTT	CCTGACAGAG	ACCCA	1434
rat	GGCTCCCCCTC	TGAGAACAGT	GAATGGTGT	CTGATCTCCA	TTGGCTGCCT	GGCCATGTTT	GTCACCATGG	TTACC	1551
mouse	GAATCCCCCTC	TGAGAACAGT	GAATGGTGT	CTGATCTCCA	TCGGCTGCCT	GGCTGTGCCT	GTCACCATGG	TTACC	1557
human	GCCTCCCTT	TAAGGATGGC	AAACAGTGC	CTGATCTCCG	TTGGCTGCTT	GGCCATATTT	GTCACTGTGA	TCTCC	1509
rat	ATCTTGTGT	ACAAAAAAACA	CAAGACGTAC	AAGCCAATAG	GAAACTGCA	CAGGAACGTG	GTCAGGGCA	AAGGC	1626
mouse	ATCTTGTGT	ACAAAAAAACA	CAAGACGTAC	AAGCCAATAG	GAAACTGCC	CAGGAACACG	GTCAGGGCA	AAGGC	1632
human	CTCTTGTGT	ACAAAAAAACA	CAAGGAATAC	AACCCAATAG	AAAATAGTC	TGGGAATGTG	GTCAGAAGCA	AAGGC	1584
rat	CTGAGGTGTT	TTCTCAGCCA	TGCAAAAGCC	CCGTTCTCCC	GAGGAGACCG	GGAGAAGGAT	CCACTGCTCC	AGGAC	1701
mouse	CTGAGGTGTT	TTCTCAGTC	CGCGAAAGCC	CCGTTCTCC	GAGGAGACCA	GGAGAAGGAT	CCATTGCTCC	AGGAC	1707
human	CTGAGGTGCT	TTCTCAACCG	TGCAAAAGCC	GTGTTCTCC	CGGGAAACCA	GGAAAAGGAT	CCGCTACTC	---AA	1655
rat	AAGCCATGGA	TGCTCTAA--	-----	-----	-----	-----	-----	-----	1719
mouse	AAGCCAAGGA	CACTCTAA--	-----	-----	-----	-----	-----	-----	1725
human	AAACCAAGAA	---TTAAAG	GAGTTCTTA	A	-----	-----	-----	-----	1683

FIGURE 2A, cont'd.

rat	MESLCGVLFV LLLAAGLPLQ AAKRFRDVLC HEQYPDHMRE NNQLRGWSSD	50
mouse	MESLCGVLGFV LLLAAGLPLQ AAKRFRDVLC HEQYPDHMRE NNQLRGWSSD	50
human	MECLYYFLGFV LLLAARLPLD AAKRFDVLC NERPSAYMRE NNQLNGWSSD	50
rat	ENEWDEQLYPV WVRRGEGGRWK DSWEGRVQA ALTSDSPALV GSNTFVVNL	100
mouse	ENEWDEHLYPV WVRRGDGRWK DSWEGRVQA VLTSDSPALV GSNTFVVNL	100
human	ENDWNEKLYPV WVKRGDMRWK NSWKGGRVQA VLTSDSPALV GSNTFAVNL	100
rat	VFPRCQKEDA NGNIVYERNC RSDLELASDP YVYNWTTGAD DEDWEDNTSQ	150
mouse	VFPRCQKEDA NGNIVYEKNC RNDLGLTSDL HVYNWTAGAD DGDWEDGTSR	150
human	IFPRCQKEDA NGNIVYERNC RNEAGLSADP YVYNWTAWSE DSDGENGTGQ	150
rat	GQHLRFPDGK PFPFRPHGRKK WNFVYVFHTL GQYFQKLGQC SARVSINTVN	200
mouse	SQHLRFPDRR PFPFRPHGWKK WSFVYVFHTL GQYFQKLGRC SARVSINTVN	200
human	SHHNVFPGDK PFPHHPGWRR WNFIYVFHTL GQYFQKLGRC SVRVSINTAN	200
rat	LTVPGPQVMEV IVFRRHGRAY IPISKVKDVFV VITDQ1PIFV TMYQKNDRNS	250
mouse	LTAGGPQVMEV TVFRRYGRAY IPISKVKDVFV VITDQ1PVFV TMSQKNDRNL	250
human	VTLGPQLMEV TVYRRHGRAY VPIAQVKDVFV VVTDQ1PVFV TMFQKNDRNS	250
rat	SDETFLRDLP IFFDVLIHDP SHFLNYS AIS YKWNFGDNTG LFVSNNTL	300
mouse	SDEIFLRDLP IFFDVLIHDP SHFLNDS AIS YKWNFGDNTG LFVSNNTL	300
human	SDETFLKDLP IMFDVLIHDP SHFLNYSTIN YKWSFGDNTG LFVSTNHTVN	300
rat	HTYVLNGTFN FNLTQVTA VP GPCPSPTPS- -PSSSTSPSP ASSPSPTLST	348
mouse	HTYVLNGTFN LNLTQVTA VP GPCPPPSPT PPSPSTPPLP SPSPPLPTLST	350
human	HTYVLNGTES LNLTVKAAAP GPCPPPPP-- -----PPRP -----SK	334
rat	PSPSLMLPTGY KSMELSDISN ENCRINRYGY FRATITIVDG ILEVNIQVA	398
mouse	PSPSLMLPTGY KSMELSDISN ENCRINRYGY FRATITIVEG ILEVSIQMIA	400
human	PTPSLGPAGD NPLELSRIPD ENCQINRYGH FQATITIVEG ILEVNIIQMT	384
rat	DVPIIPLQPD NSLMDFIVTC KGATPTEACT IIISDPTCQIA QNRVCSPVAV	448
mouse	DVPMPTPQPA NSLMDFTVTC KGATPMEACT IIISDPTCQIA QNRVCSPVAV	450
human	DVLMPVPWPE SSLIDFVVTC QGSIPTEVCT IIISDPTCEIT QNTVCSPVDV	434
rat	DELCLLSVRR AFNGSGTYCV NFLGDDASL ALTSALISIP GKDLGSPRLT	498
mouse	DGLCLLSVRR AFNGSGTYCV NFLGDDASL ALTSTLISIP GKDPDSPLRA	500
human	DEMCLLTVRR TNNGSGTYCV NLTGDDTSL ALTSTLISVP DRDPASPLRM	484
rat	VNGVLISIGC LAMFVTMVTI LLYKKHHKTYK PIGNCTRNVV KGKGLSVFLS	548
mouse	VNGVLISIGC LAVLVTMVTI LLYKKHHKAYK PIGNCPRNTV KGKGLSVLLS	550
human	ANSALISVGC LAIFVTVISL LVYKKHHKEYN PIENSPGNV RSKGLSVFLN	534
rat	HAKAPFSRGD REKDPLLQDK PW--ML 572	
mouse	HAKAPFFRGD QEKDPLLQDK PR--TL 574	
human	RAKAVFFPGN QEKDPLKQ EFKGVS 560	

FIGURE 2B

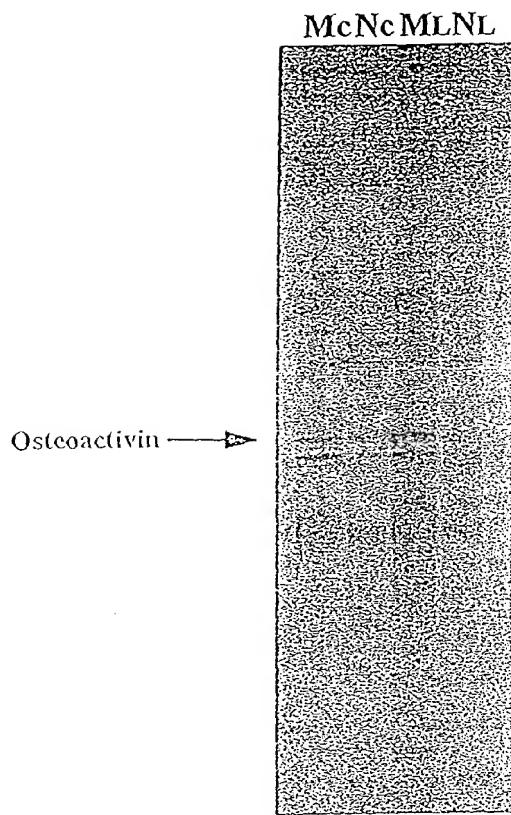


FIGURE 3

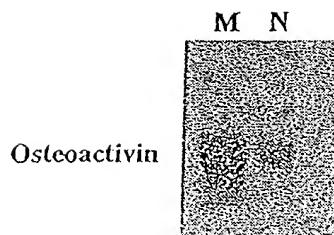


FIGURE 4A

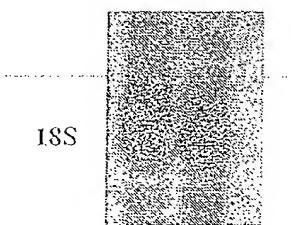


FIGURE 4B

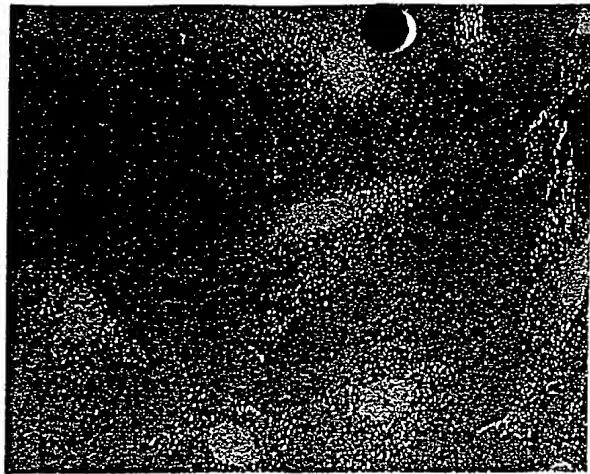


FIGURE 5

FIGURE 5 = FIGURE 5

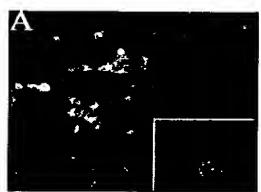


Figure 5A

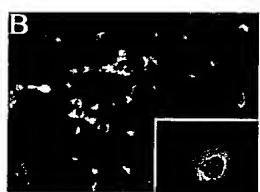


Figure 5B

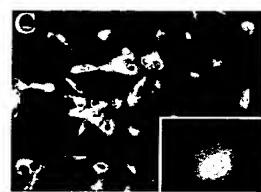


Figure 5C

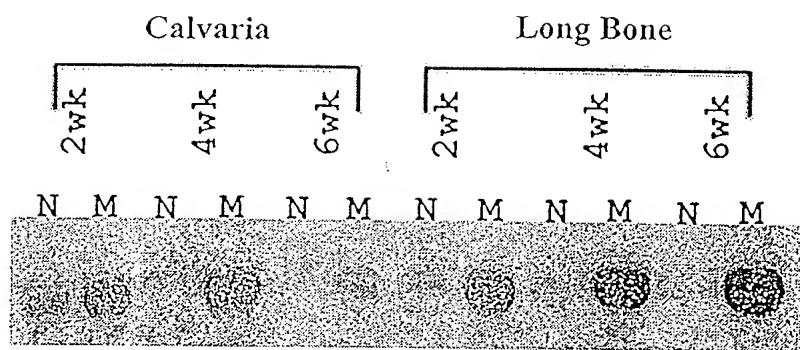


FIGURE 6

FIGURE 7A

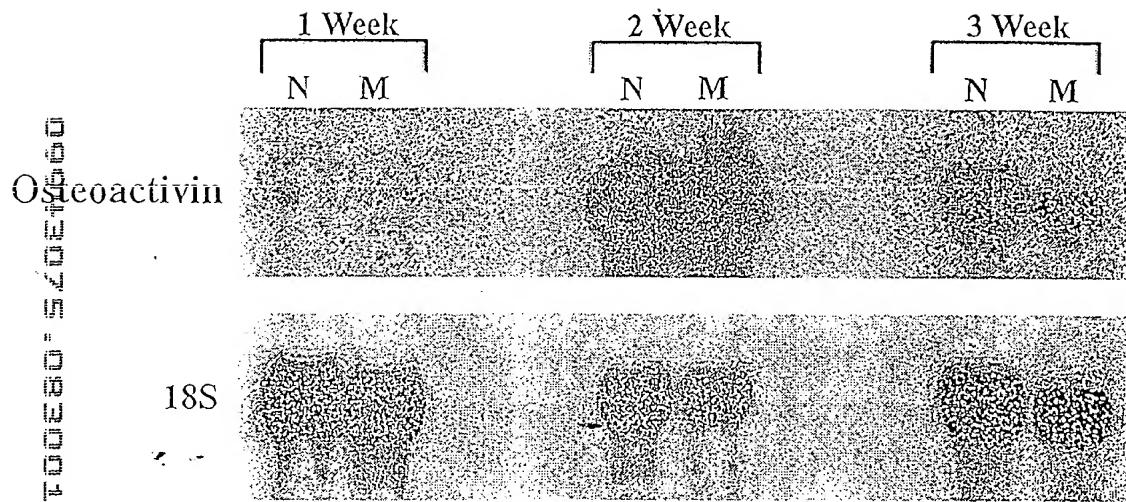


FIGURE 7B

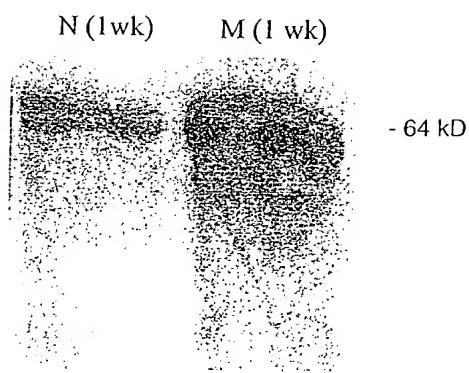


FIGURE 8

### Osteoactivin expression

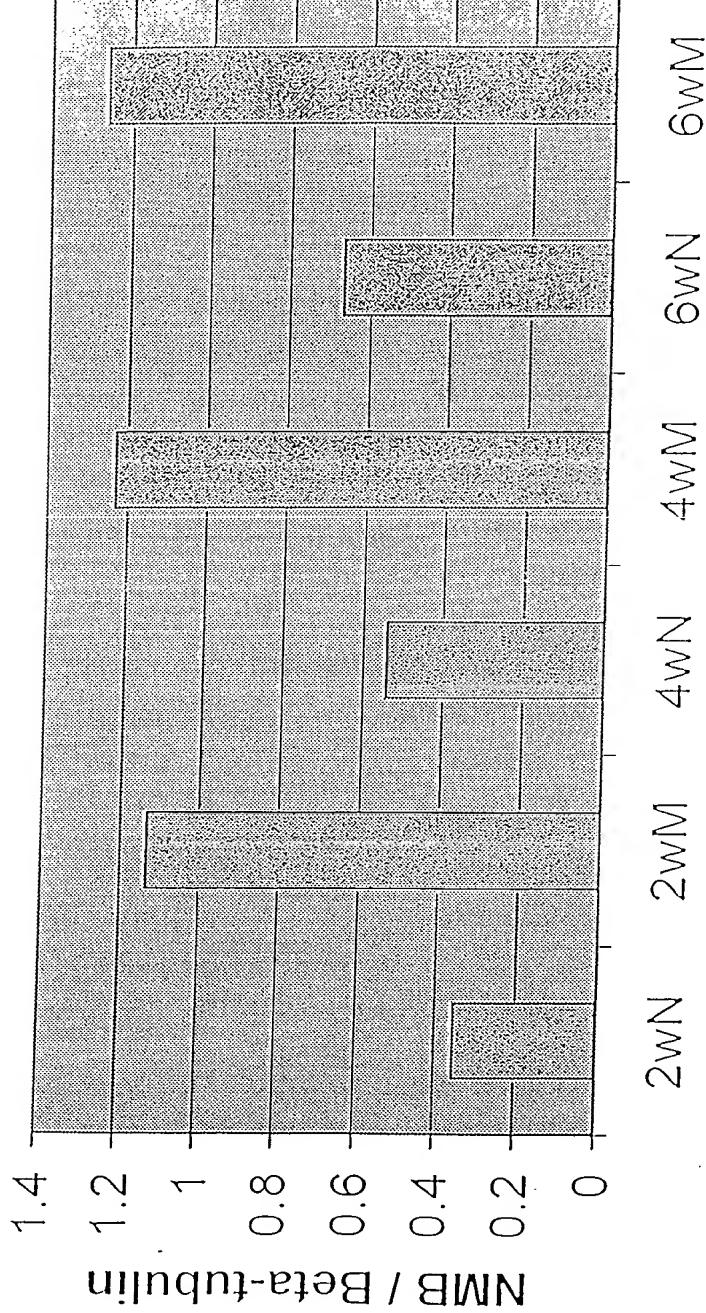
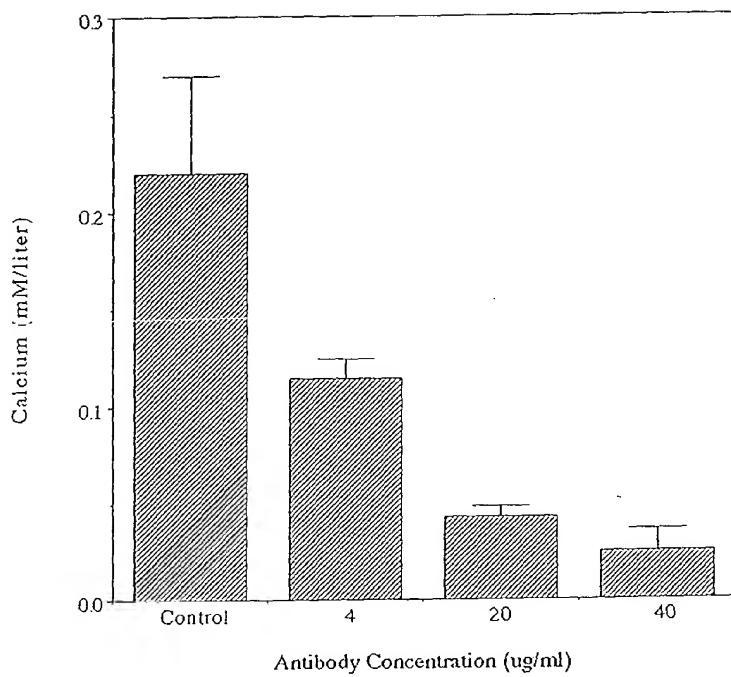


FIGURE 9



**FIGURE 10**